FIG. 1

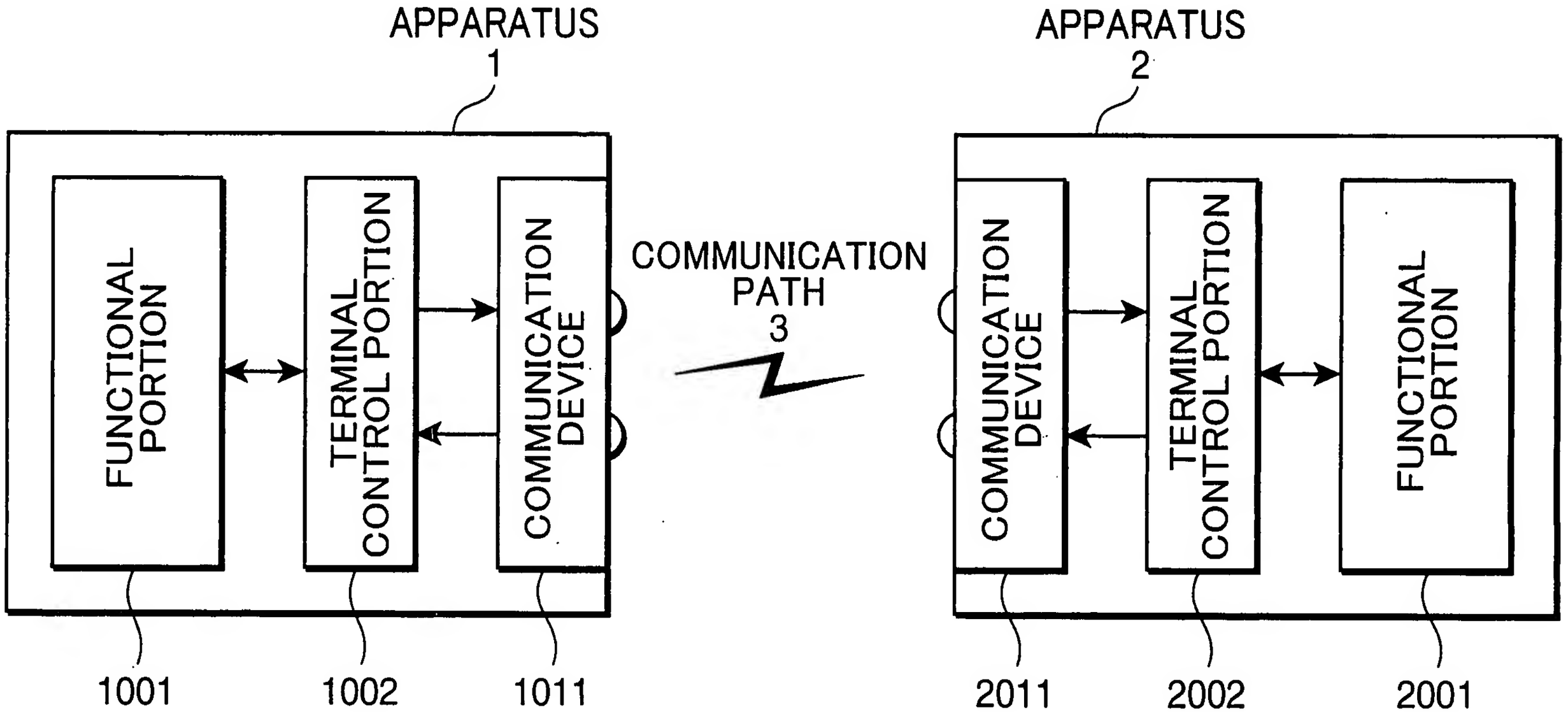

APPARATUS
1
FUNCTIONAL PORTION
TERMINAL CONTROL PORTION
COMMUNICATION DEVICE
1001
1002
1011
COMMUNICATION PATH
3
APPARATUS
2
COMMUNICATION DEVICE
TERMINAL CONTROL PORTION
FUNCTIONAL PORTION
2011
2002
2001

FIG. 2

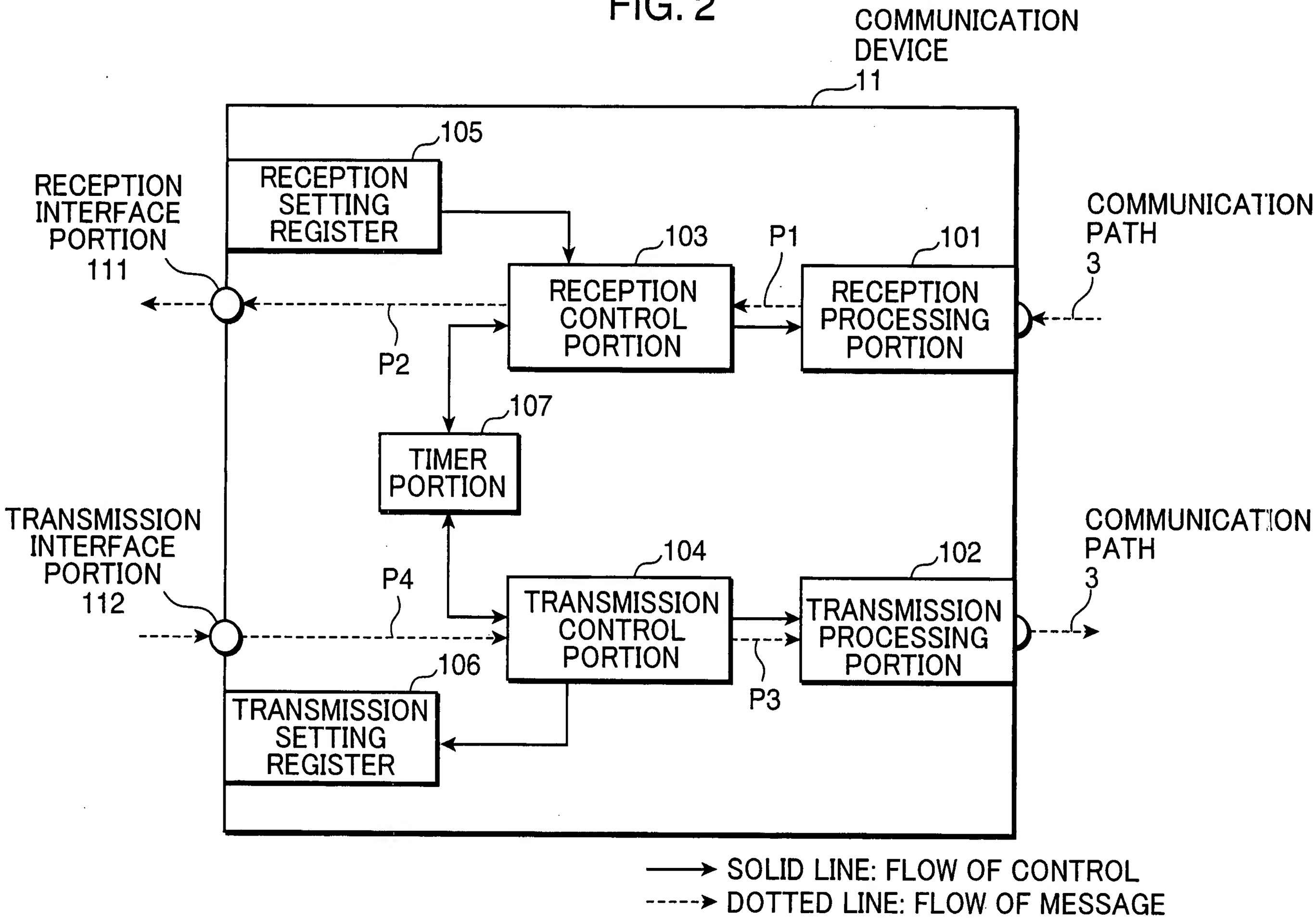

COMMUNICATION DEVICE
11
105
RECEPTION SETTING REGISTER
RECEPTION INTERFACE PORTION
111
103
P1
101
RECEPTION CONTROL PORTION
RECEPTION PROCESSING PORTION
COMMUNICATION PATH
3
P2
107
TIMER PORTION
TRANSMISSION INTERFACE PORTION
112
104
102
P4
TRANSMISSION CONTROL PORTION
TRANSMISSION PROCESSING PORTION
COMMUNICATION PATH
3
106
P3
TRANSMISSION SETTING REGISTER
SOLID LINE: FLOW OF CONTROL
DOTTED LINE: FLOW OF MESSAGE

FIG. 3A

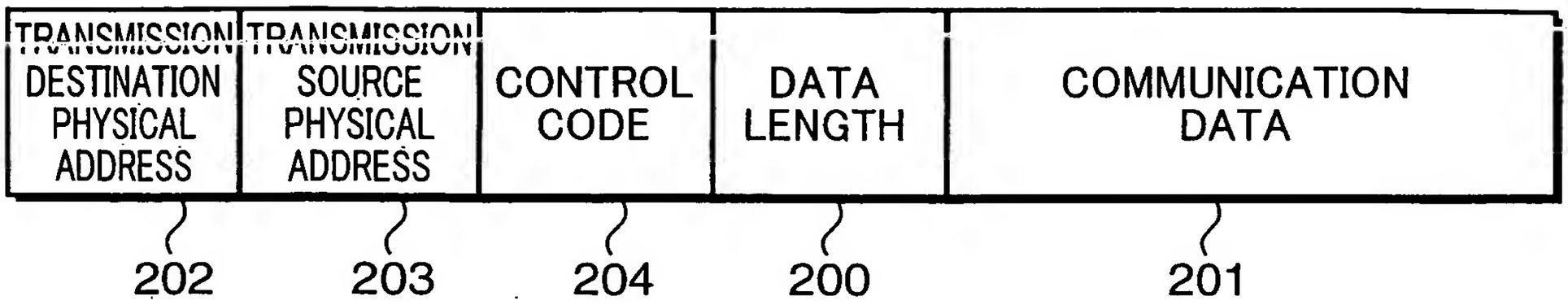


FIG. 3B

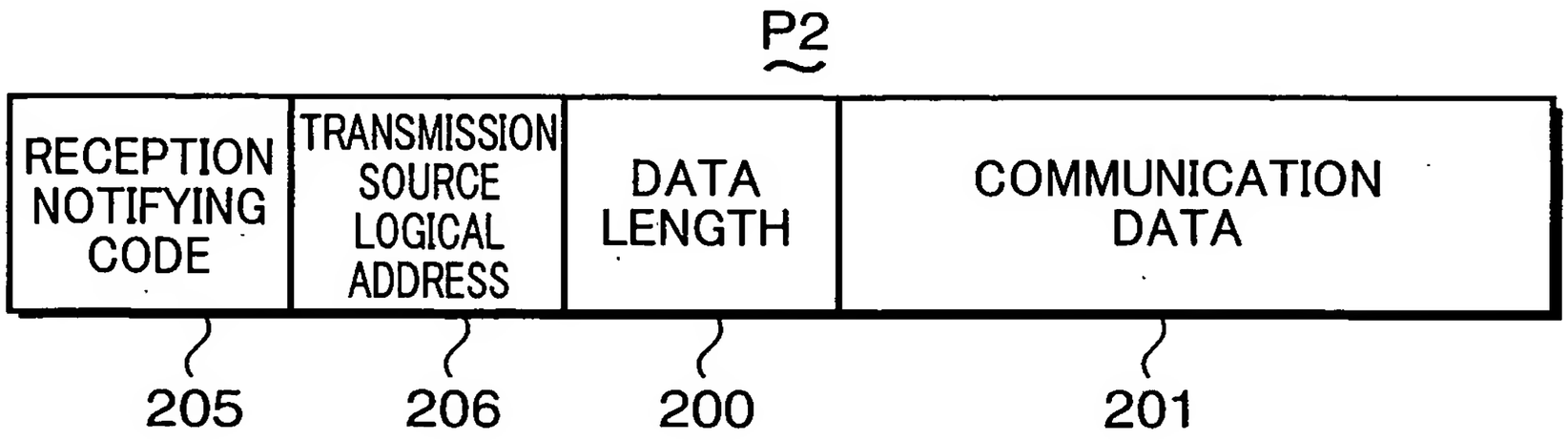


FIG. 3C

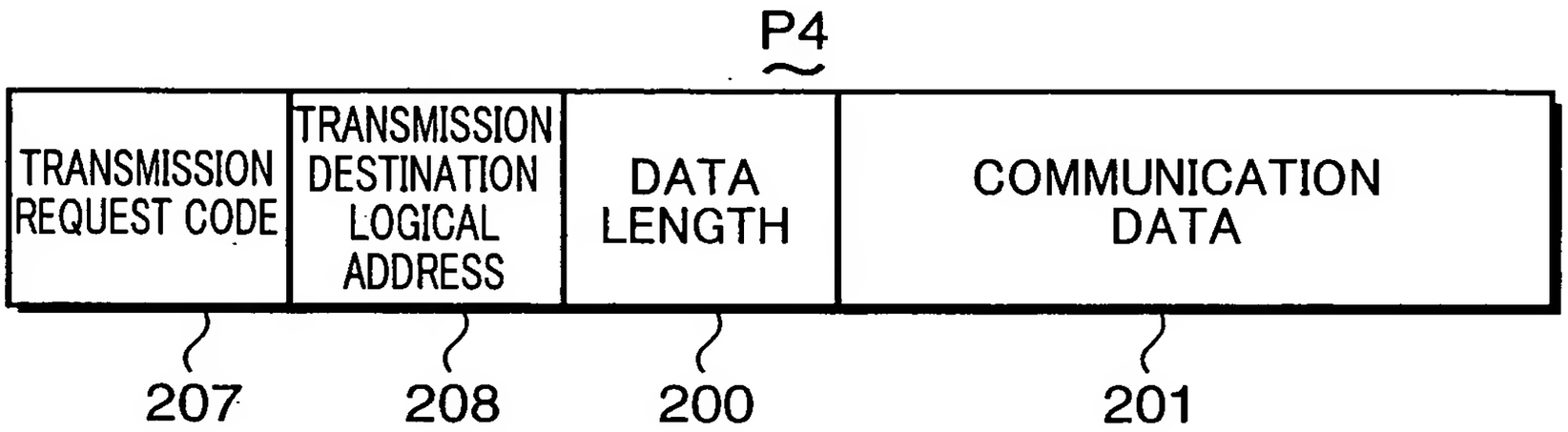


FIG. 3D

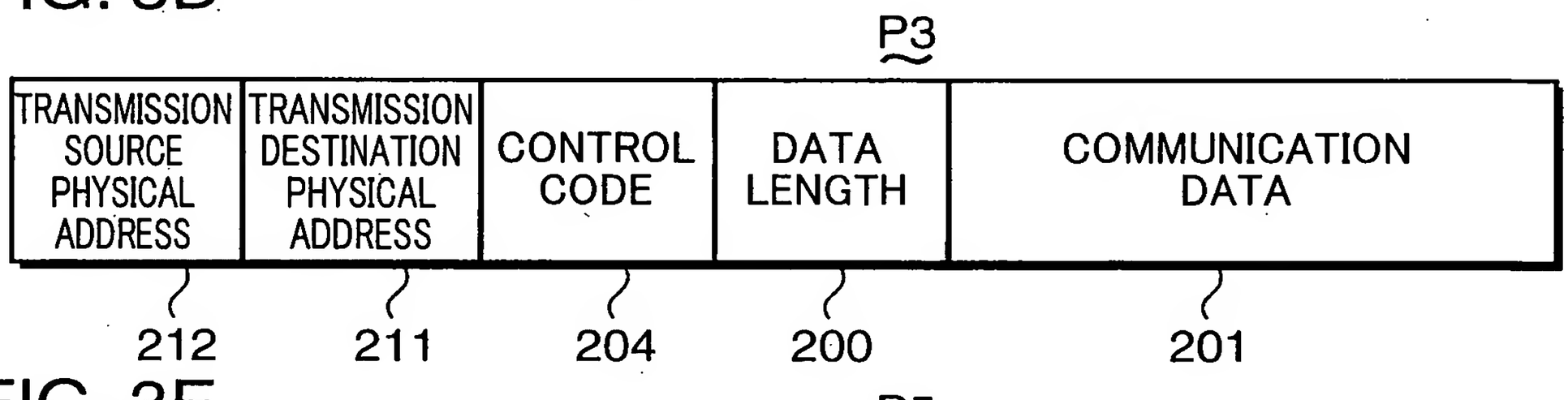


FIG. 3E

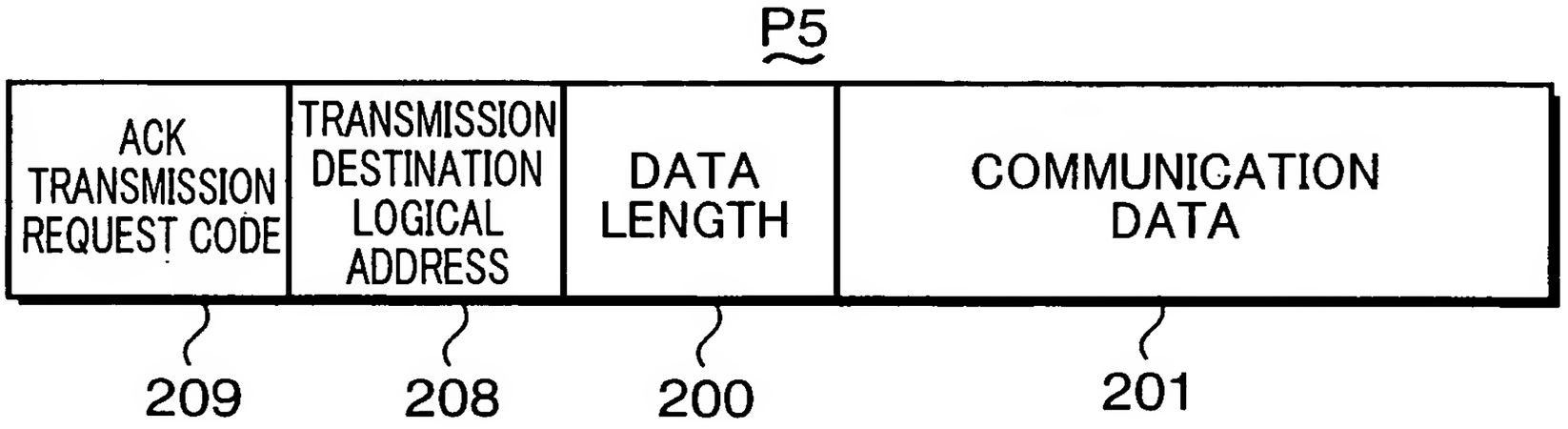
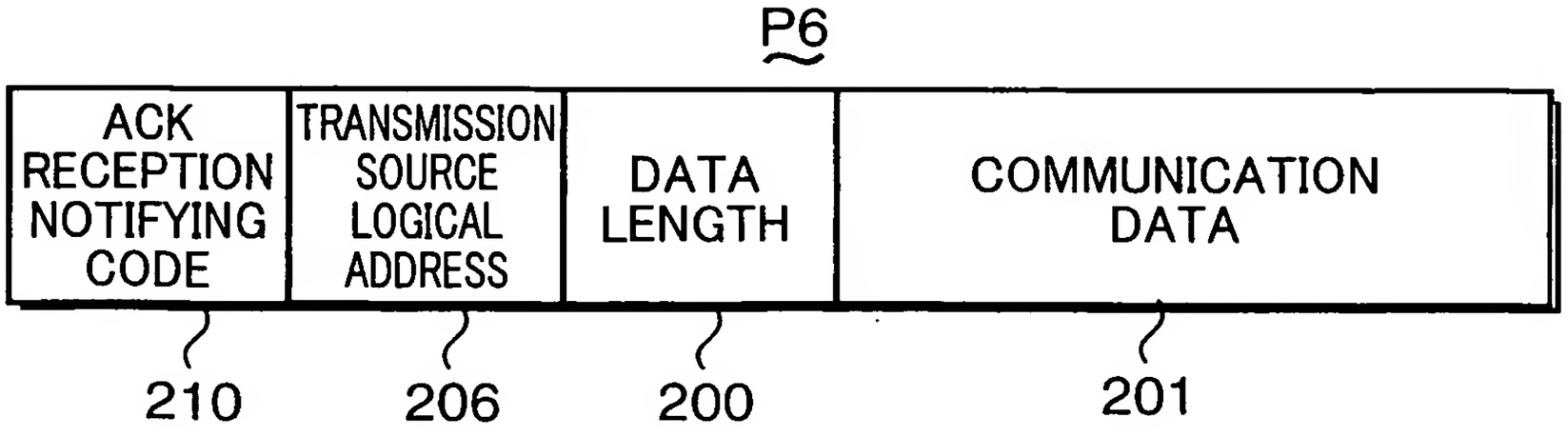


FIG. 3F



RECEPTION SETTING REGISTER	
INTERMITTENT OPERATION	ASSERTED
CONTINUOUS OPERATION	DEASSERTED

FIG. 4A

TRANSMISSION SETTING REGISTER	
CONTROLLER	APPARATUS PERFORMING INTERMITTENT RECEPTION OPERATION IS ABSENT ON NETWORK/DEASSERTED
	APPARATUS PERFORMING INTERMITTENT RECEPTION OPERATION IS PRESENT ON NETWORK/ASSERTED
OTHER THAN CONTROLLER	DEASSERTED

FIG. 4B

FIG. 5

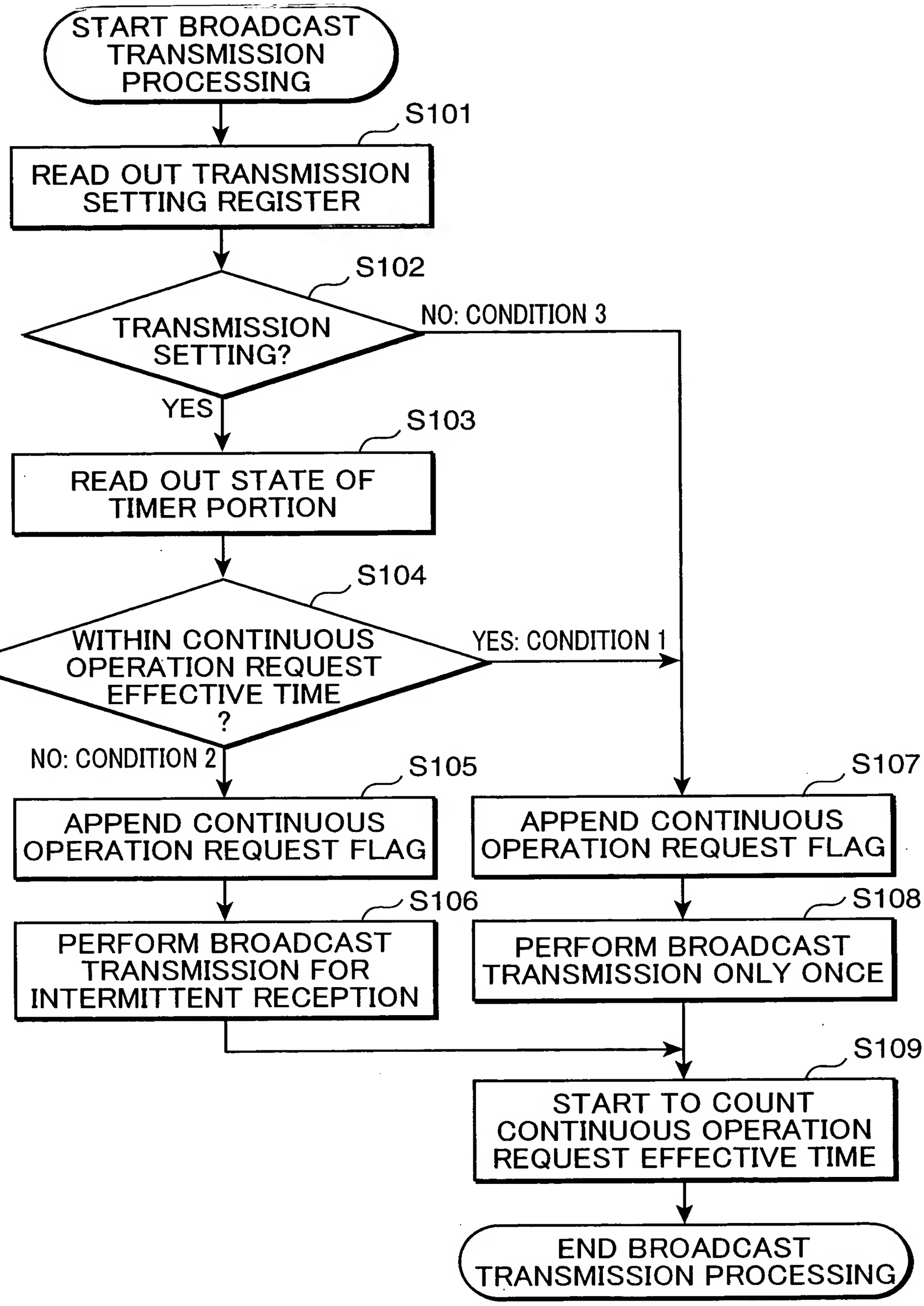

START BROADCAST TRANSMISSION PROCESSING
S101
READ OUT TRANSMISSION SETTING REGISTER
S102
TRANSMISSION SETTING?
NO: CONDITION 3
YES
S103
READ OUT STATE OF TIMER PORTION
S104
WITHIN CONTINUOUS OPERATION REQUEST EFFECTIVE TIME ?
YES: CONDITION 1
NO: CONDITION 2
S105
APPEND CONTINUOUS OPERATION REQUEST FLAG
S107
APPEND CONTINUOUS OPERATION REQUEST FLAG
S106
PERFORM BROADCAST TRANSMISSION FOR INTERMITTENT RECEPTION
S108
PERFORM BROADCAST TRANSMISSION ONLY ONCE
S109
START TO COUNT CONTINUOUS OPERATION REQUEST EFFECTIVE TIME
END BROADCAST TRANSMISSION PROCESSING

FIG. 6

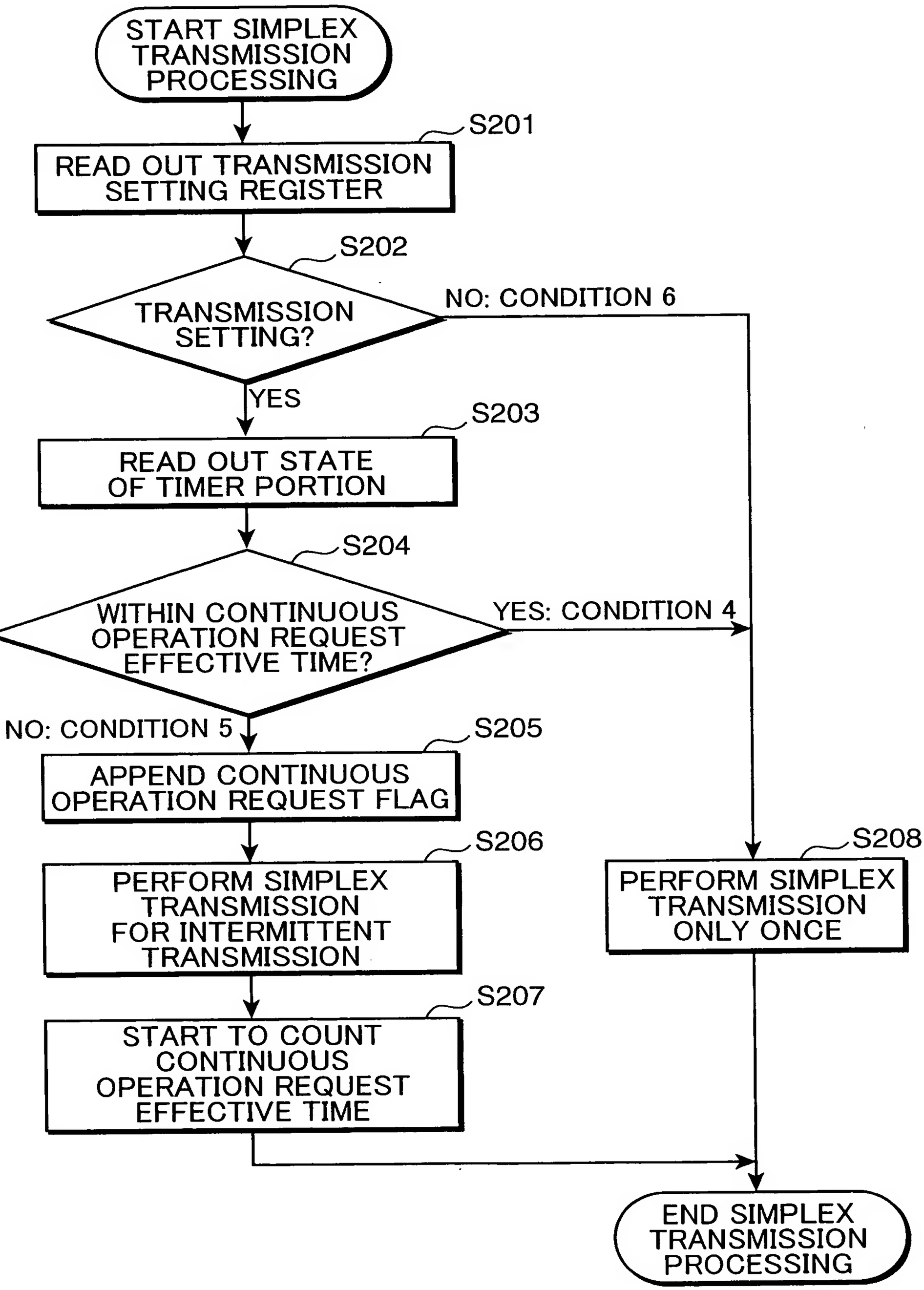
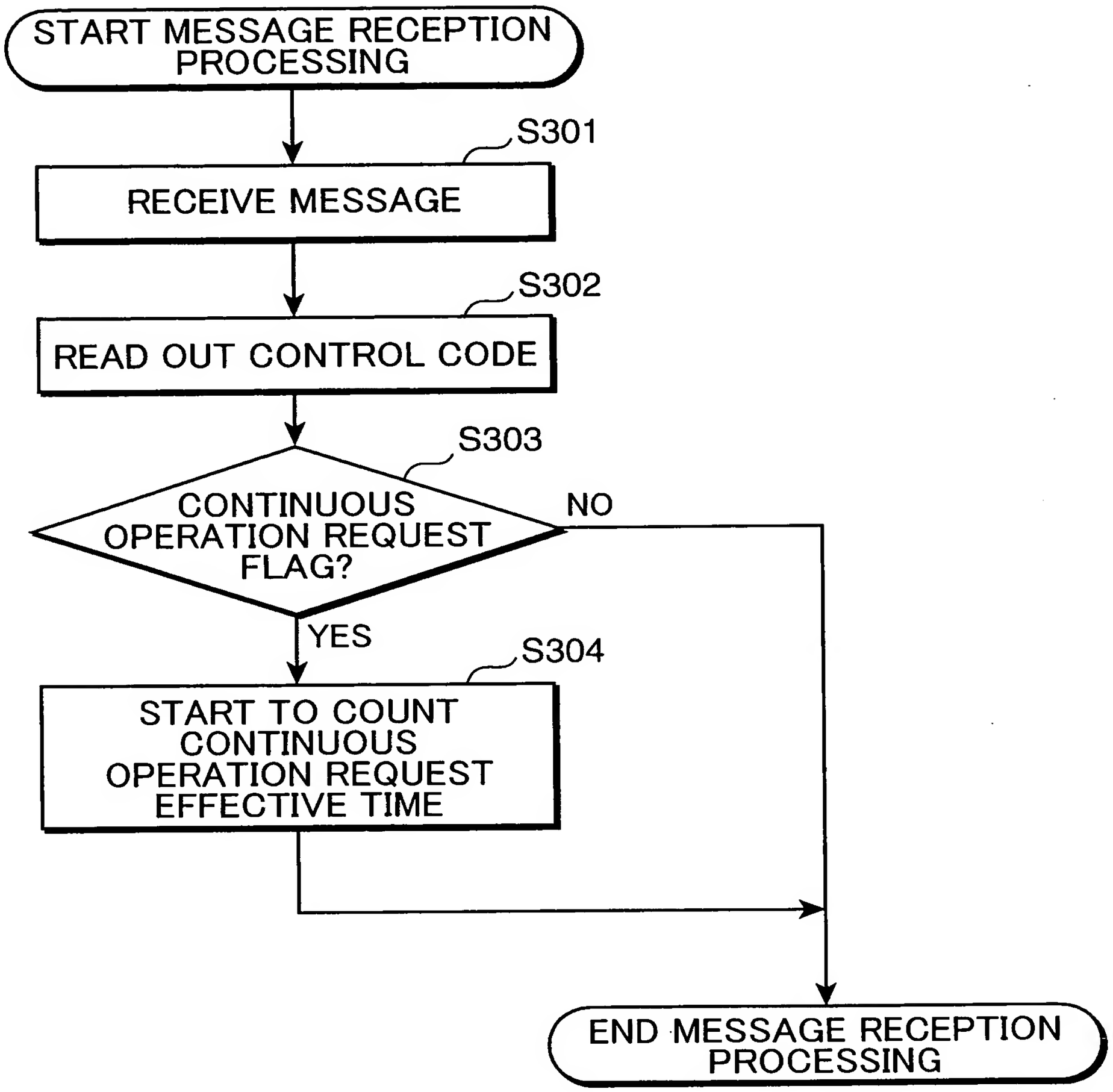

START SIMPLEX TRANSMISSION PROCESSING
S201
READ OUT TRANSMISSION SETTING REGISTER
S202
TRANSMISSION SETTING?
NO: CONDITION 6
YES
S203
READ OUT STATE OF TIMER PORTION
S204
WITHIN CONTINUOUS OPERATION REQUEST EFFECTIVE TIME?
YES: CONDITION 4
NO: CONDITION 5
S205
APPEND CONTINUOUS OPERATION REQUEST FLAG
S206
PERFORM SIMPLEX TRANSMISSION FOR INTERMITTENT TRANSMISSION
S207
START TO COUNT CONTINUOUS OPERATION REQUEST EFFECTIVE TIME
S208
PERFORM SIMPLEX TRANSMISSION ONLY ONCE
END SIMPLEX TRANSMISSION PROCESSING

FIG. 7


START MESSAGE RECEPTION PROCESSING
S301
RECEIVE MESSAGE
S302
READ OUT CONTROL CODE
S303
CONTINUOUS OPERATION REQUEST FLAG?
NO
YES
S304
START TO COUNT CONTINUOUS OPERATION REQUEST EFFECTIVE TIME
END MESSAGE RECEPTION PROCESSING

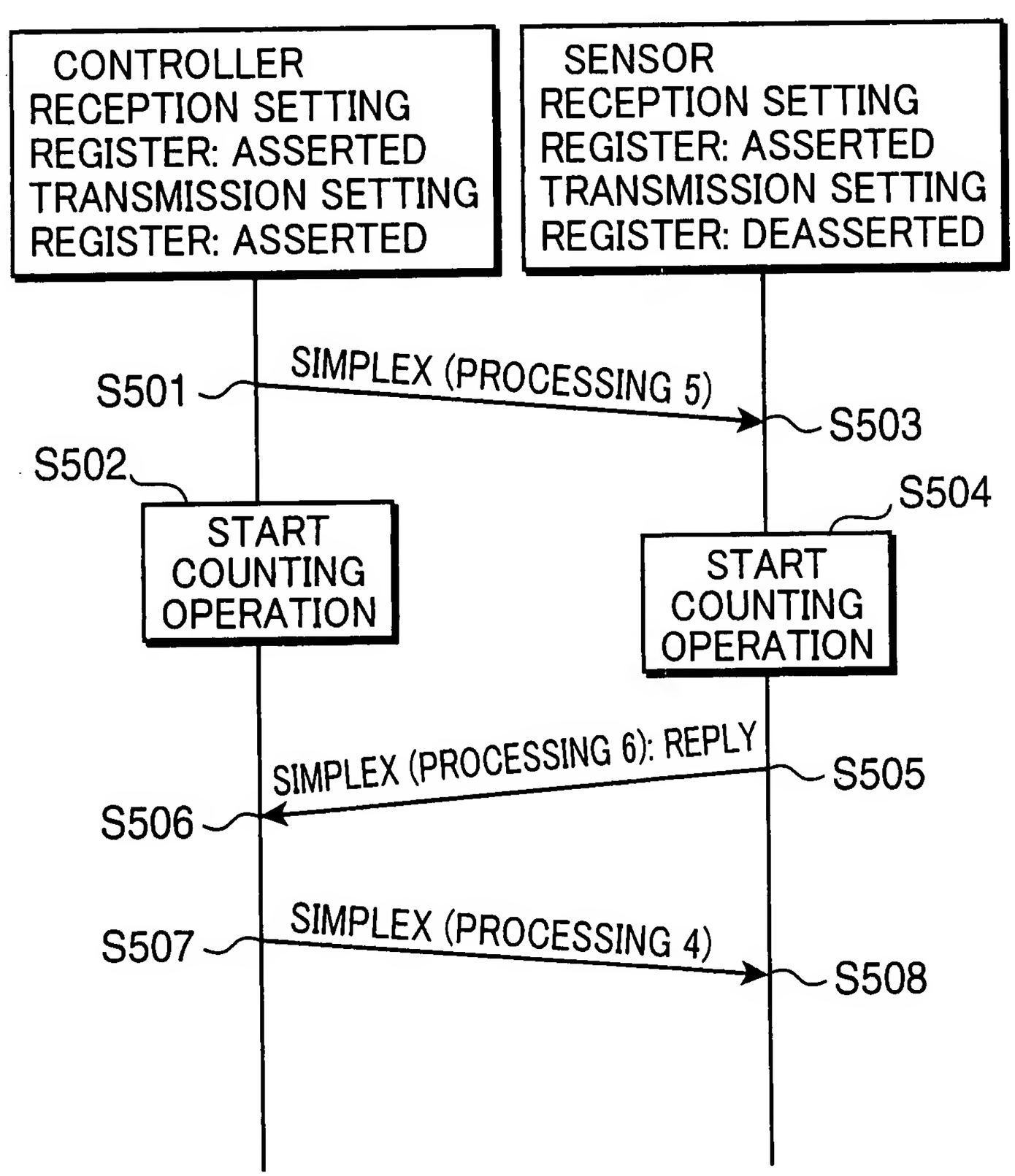

CONTROLLER
RECEPTION SETTING
REGISTER: ASSERTED
TRANSMISSION SETTING
REGISTER: ASSERTED
SENSOR
RECEPTION SETTING
REGISTER: ASSERTED
TRANSMISSION SETTING
REGISTER: DEASSERTED
S501
SIMPLEX (PROCESSING 5)
S503
S502
START COUNTING OPERATION
S504
START COUNTING OPERATION
SIMPLEX (PROCESSING 6): REPLY
S505
S506
S507
SIMPLEX (PROCESSING 4)
S508

FIG. 8A

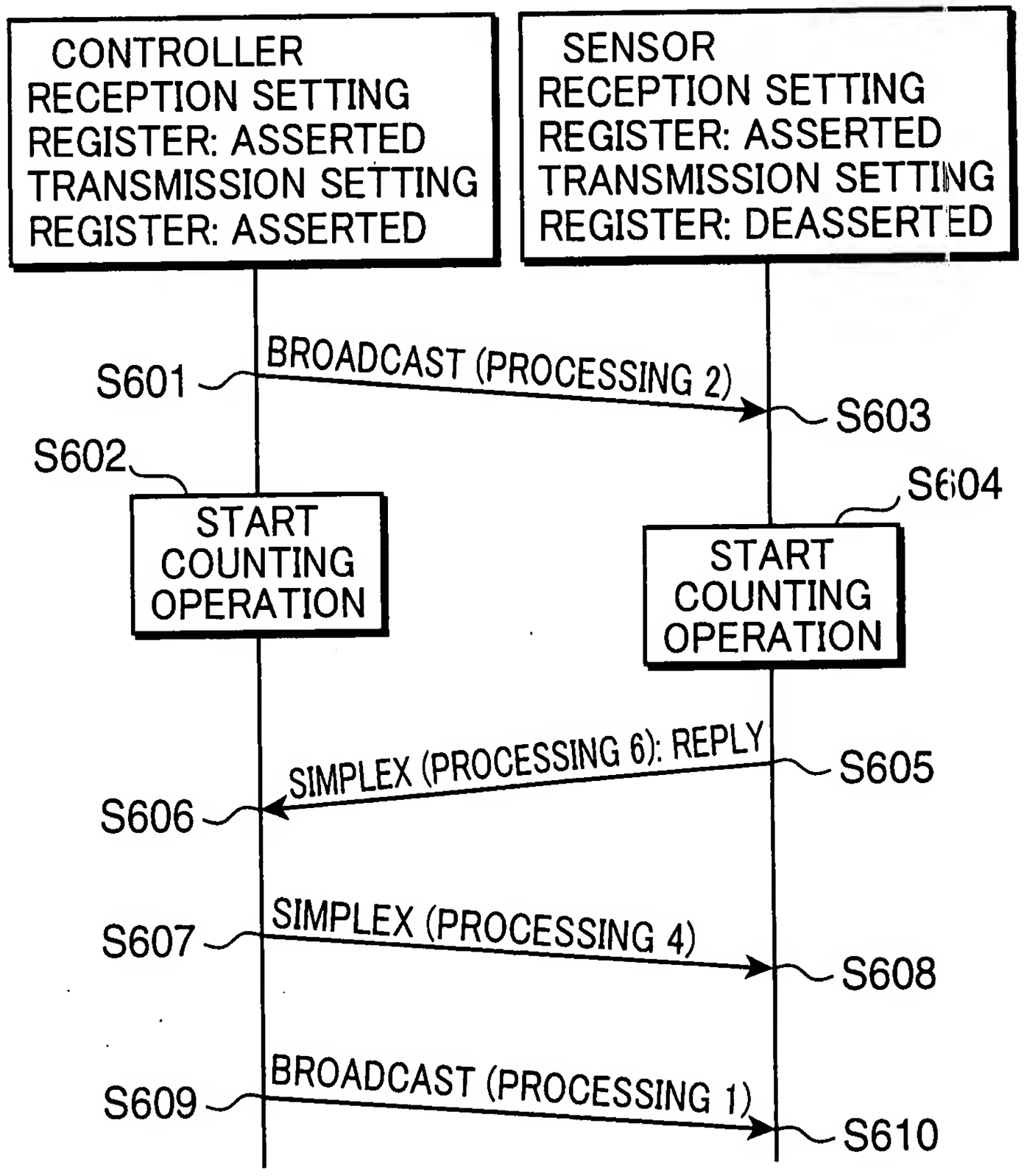

CONTROLLER
RECEPTION SETTING
REGISTER: ASSERTED
TRANSMISSION SETTING
REGISTER: ASSERTED
SENSOR
RECEPTION SETTING
REGISTER: ASSERTED
TRANSMISSION SETTING
REGISTER: DEASSERTED
S601
BROADCAST (PROCESSING 2)
S603
S602
START COUNTING OPERATION
S604
START COUNTING OPERATION
SIMPLEX (PROCESSING 6): REPLY
S605
S606
S607
SIMPLEX (PROCESSING 4)
S608
S609
BROADCAST (PROCESSING 1)
S610

FIG. 8B

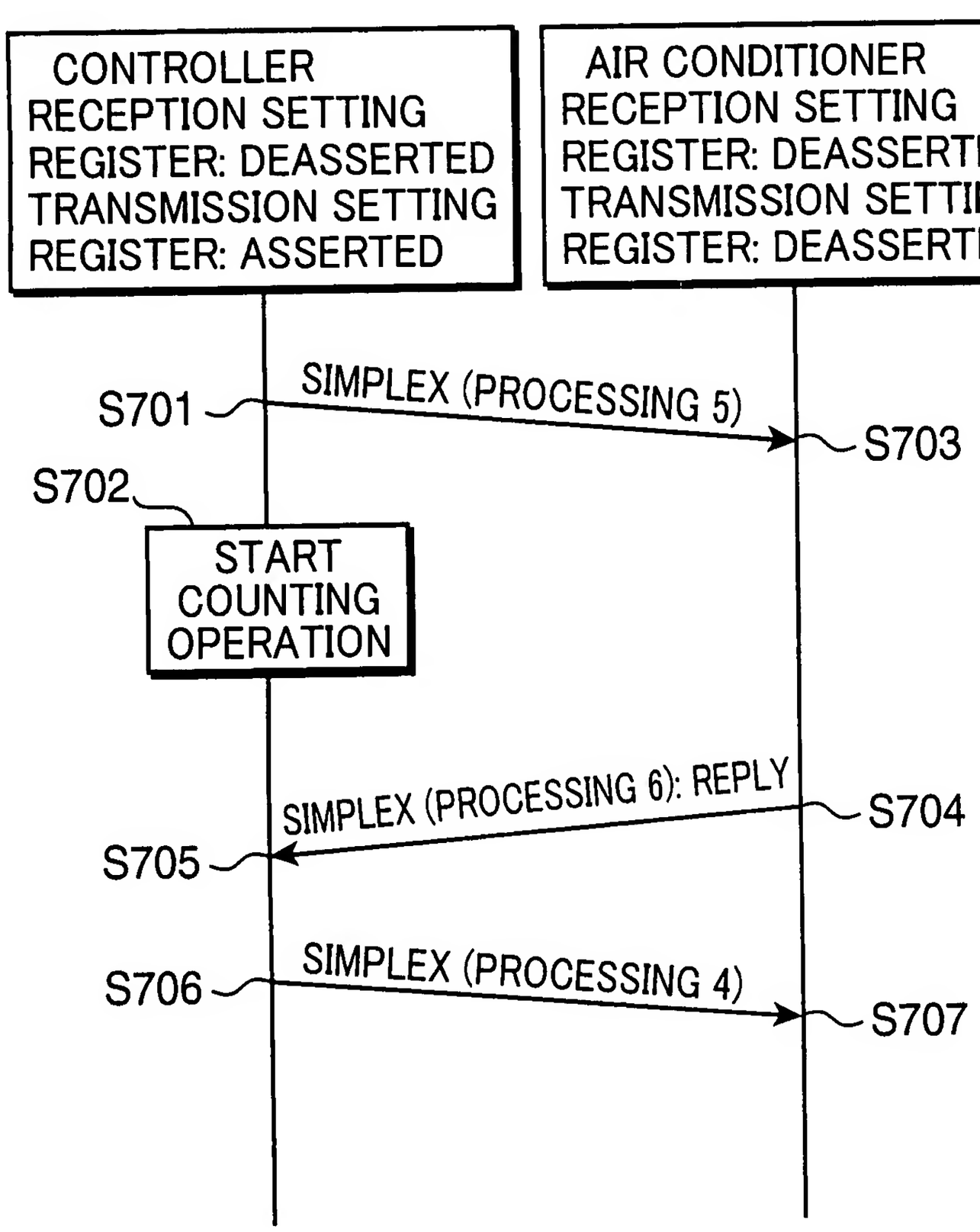

CONTROLLER
RECEPTION SETTING
REGISTER: DEASSERTED
TRANSMISSION SETTING
REGISTER: ASSERTED
AIR CONDITIONER
RECEPTION SETTING
REGISTER: DEASSERTED
TRANSMISSION SETTING
REGISTER: DEASSERTED
S701
SIMPLEX (PROCESSING 5)
S703
S702
START
COUNTING
OPERATION
SIMPLEX (PROCESSING 6): REPLY
S704
S705
S706
SIMPLEX (PROCESSING 4)
S707

FIG. 9A

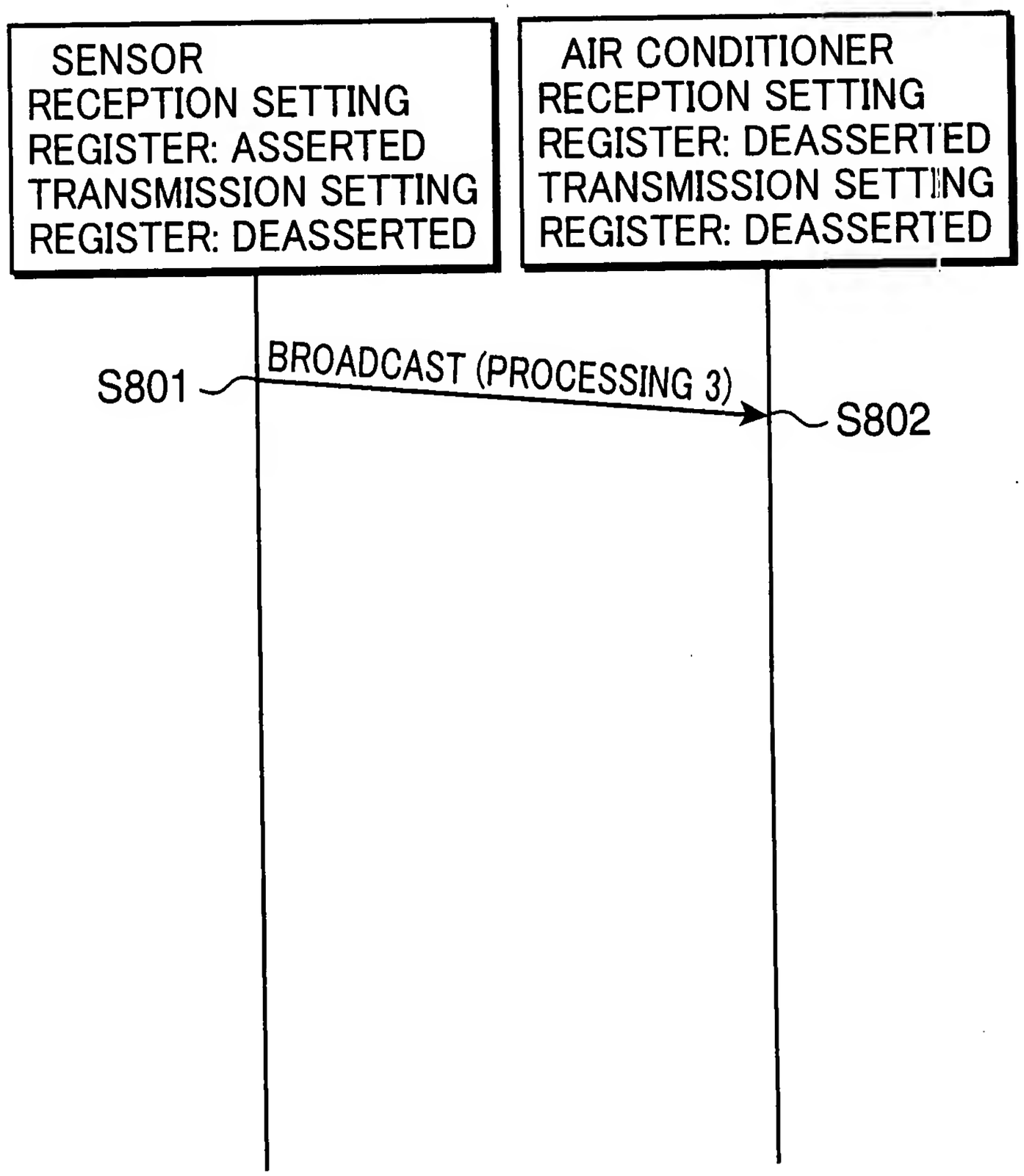

SENSOR
RECEPTION SETTING
REGISTER: ASSERTED
TRANSMISSION SETTING
REGISTER: DEASSERTED
AIR CONDITIONER
RECEPTION SETTING
REGISTER: DEASSERTED
TRANSMISSION SETTING
REGISTER: DEASSERTED
S801
BROADCAST (PROCESSING 3)
S802

FIG. 9B

FIG. 10

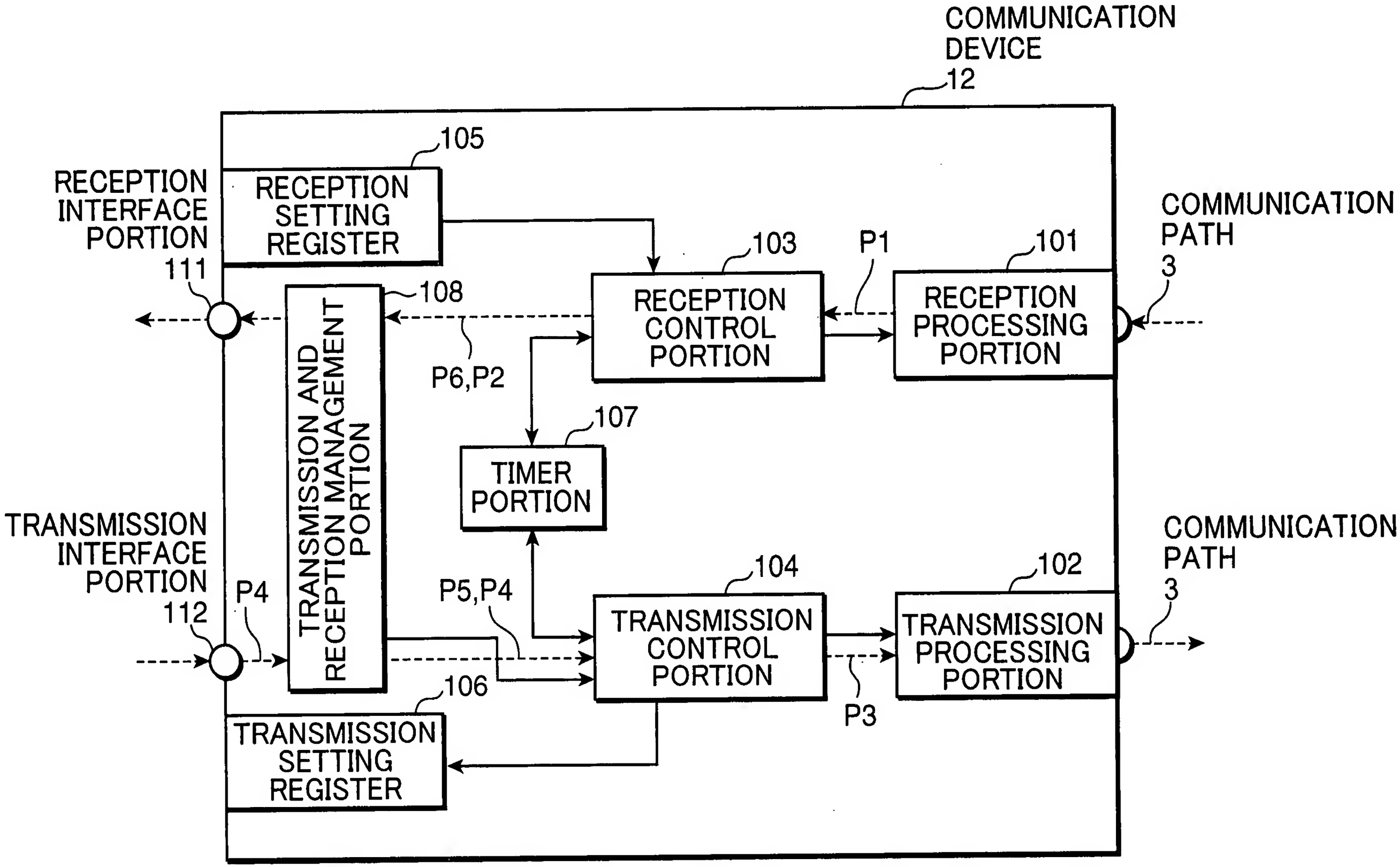
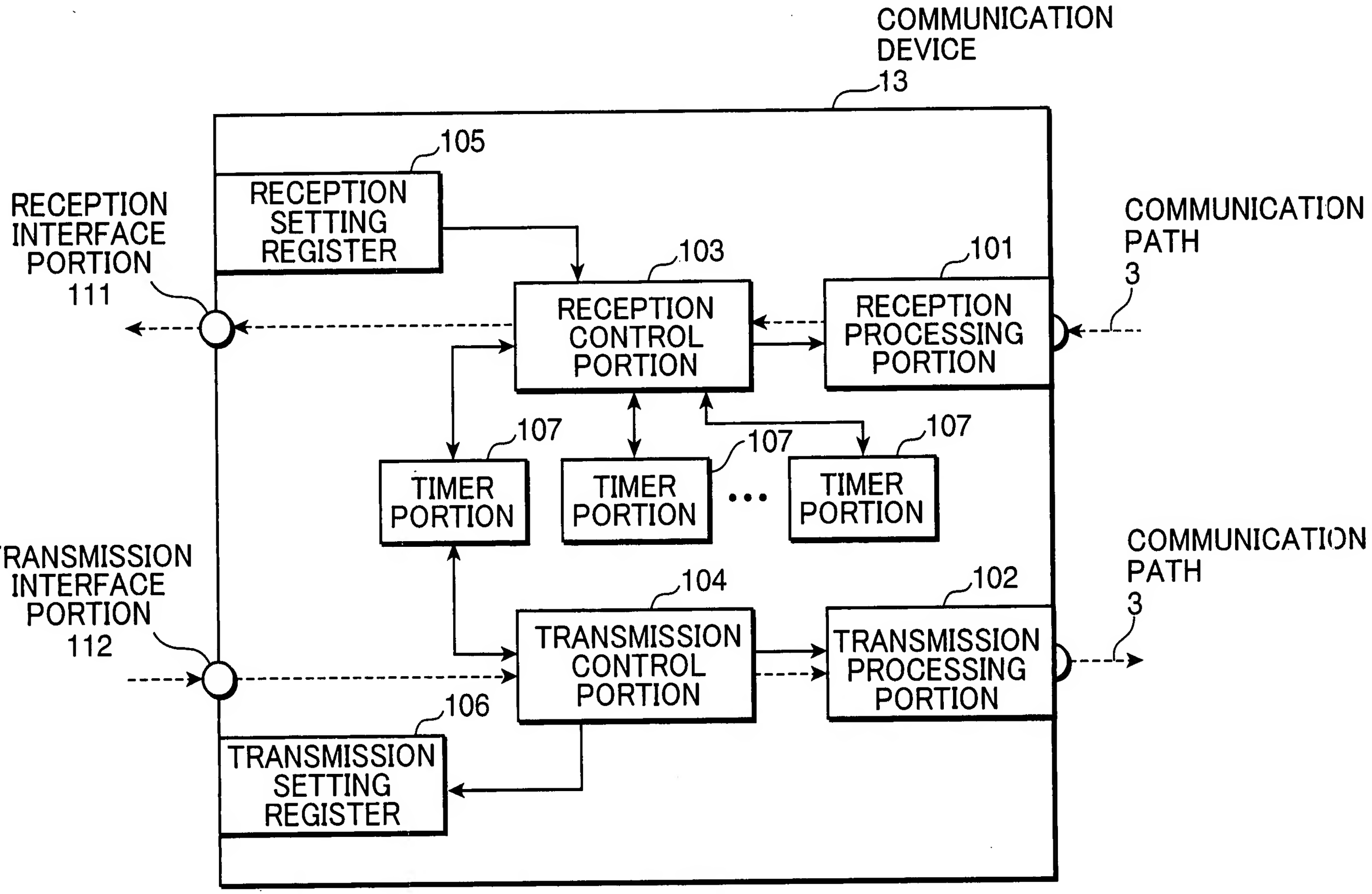

COMMUNICATION DEVICE
12
105
RECEPTION SETTING REGISTER
RECEPTION INTERFACE PORTION
111
103
P1
101
COMMUNICATION PATH
3
108
RECEPTION CONTROL PORTION
RECEPTION PROCESSING PORTION
TRANSMISSION AND RECEPTION MANAGEMENT PORTION
P6,P2
107
TIMER PORTION
TRANSMISSION INTERFACE PORTION
112
P4
104
102
P5,P4
COMMUNICATION PATH
3
TRANSMISSION CONTROL PORTION
TRANSMISSION PROCESSING PORTION
106
P3
TRANSMISSION SETTING REGISTER

FIG. 11


COMMUNICATION DEVICE
13
105
RECEPTION SETTING REGISTER
RECEPTION INTERFACE PORTION
111
103
RECEPTION CONTROL PORTION
101
RECEPTION PROCESSING PORTION
COMMUNICATION PATH
3
107
TIMER PORTION
107
TIMER PORTION
107
TIMER PORTION
TRANSMISSION INTERFACE PORTION
112
104
TRANSMISSION CONTROL PORTION
102
TRANSMISSION PROCESSING PORTION
COMMUNICATION PATH
3
106
TRANSMISSION SETTING REGISTER